A. PROCESS

 $\begin{array}{c} D0E/RL\text{--}88\text{--}21\\ Single\text{--Shell Tank System} \end{array}$ Rev. 6, 12/21/99

Please print or type in the unshaded areas only (fill-in areas are spaced for elite type, i.e. 12 character/inch).

FORM 3	DAN	IGER	OUS WASTE PERMIT	APPLICATION		. EPA/STATE I.D. NUMBER W A 7 8 9 0 0 0 8 9 6 7
FOR OFFICIAL	USE ONLY					
APPLICATION APPROVED	DATE RECEIVE (mo., day, & yr.,	- 1		COMMENTS		
				Approved 01	/12/00	
II. FIRST OR RE	VISED APPLICATI	ON				
	s is your first applic		below (mark one box only) to indicate who I you already know your facility's EPA/STA			
1. E>	CATION (place an (ISTING FACILITY DAY YEAR 22 1943		and provide the appropriate date) (See instructions for definition of "existing" Complete Item below.) *FOR EXISTING FACILITIES, PROVIDE TO DATE (mo., day, & yr.) OPERATION BEGITHE DATE CONSTRUCTION COMMENCY the boxes to the left) *The date construction of the Hanford Factory in the construction of the Commenced.	THE MO. [I	DAY	omplete item below) FOR NEW FACILITIES, PROVIDE THE DATE, (mo., day, & yr.) OPERATION BEGAN OR IS EXPECTED TO BEGIN
	PLICATION (place ILITY HAS AN INT		elow and complete Section I above) ATUS PERMIT 2. FA	CILITY HAS A FINAL PERI	MIT	
III. PROCESS - 0	CODES AND CAPA	CITIES				
codes. If morprocess (incl B. PROCESS I 1. AMOUNT 2. UNIT OF	re lines are needed Juding its design cap DESIGN CAPACITY - Enter the amoun MEASURE - For ea	, enter the pacity) in ' - For ea t. ach amou	the list of process codes below that best of e code(s) in the space provided. If a procest the space provided on the (Section III-C). It code entered in column A enter the capant entered in column B(1), enter the code ed below should be used.	ess will be used that is not in	cluded in the list (of codes below, then describe the
ŕ	OCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO CESS COD	MEASURE FOR PROCESS
Storage:				Treatment:		
TANK WASTE PILE	(barrel, drum, etc.) POUNDMENT	S01 S02 S03 S04	GALLONS OR LITERS GALLONS OR LITERS CUBIC YARDS OR CUBIC METERS GALLONS OR LITERS	TANK SURFACE IMPOUNDMI INCINERATOR	T01 ENT T02 T03	LITERS PER DAY
LANDFILL LAND APPLIC OCEAN DISPO	CATION	D81 D82 D83 D84	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER ACRES OR HECTARES GALLONS PER DAY OR LITERS PER DAY GALLONS OR LITERS	OTHER (Use for physical chemical, thermal or biol treatment processes not occurring in tanks, surfar impoundments or incine Describe the processes space provided: Section	ogical ce rators. in the	
UNIT OF MEA	UNIT MEAS ASURE CO		UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEAS	UNIT OF MEASURE URE CODE
GALLONS LITERS CUBIC YARD CUBIC METE GALLONS PE	RS (ER DAY (, , ,	LITERS PER DAY TONS PER HOUR METRIC TONS PER HOUR GALLONS PER HOUR LITERS PER HOUR	V D W E H	ACRE-FEET HECTARE-MET ACRES HECTARES	B Q
			TING SECTION III (shown in line numbers e other can hold 400 gallons. The facility a			

B. PROCESS DESIGN CAPACITY

LINE NUMBER	CODE (from list above)	1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOF	R OFFI ON	CIAL U LY	SE
X-1	S02	600	G				
X-2	T03	20	E				
1	S02	348,390,160	L				
2	T01	2,271,240	V				
3	S03	0.11	С				
4							
5							
6							
7							
8							
9							
10							

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESS (CODE "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

S02, T01

The Single-Shell Tank (SST) System consists of 149 tanks that were built between the years 1943 and 1964 to store mixed waste (S02) generated on the Hanford Site. There are two types of tanks in the SST System, the 100 series and the 200 series. The 133 100-series SSTs are 23 meters (75 feet) in diameter with operating capacities of 1,892,700 to 3,785,400 liters (500,000 to 1,000,000 gallons). The sixteen 200-series SSTs are smaller and of a similar design with a 6 meter (20 foot) diamater and a capacity of 208,197 liters (55,000 gallons). The SST System also includes two waste transfer vault systems, the 244-AR and 244-CR Vault. The 244-AR Vault contains four permitted tanks and the 224-CR Vault contains two permitted tanks. Table 1 lists tank numbers, year of construction, year removed from service, and operating capacity.

The maximum process design capacity for tank storage at the SST System is 348,390,160 liters (92,035,230 gallons).

Treatment of the mixed waste in the SST System occurs when solids and interstitial liquids are separated and/or cooling liquids are added (T01). These treatment processes involve, but are not limited to, mechanical retrieval, sluicing, and saltwell pumping of the mixed waste. The SST System has a process design limit of 2,271,240 liters (600,000 gallons) per day based on the simultaneous pumping of two SSTs in a 24-hour period. Ancillary equipment used for the transfer of liquid mixed waste consists of: (1) centrifugal pumps capable of pumping liquid mixed waste at 1,514 liters (400 gallons) per minute, (2) induction pumps capable of pumping liquid waste from the salt well at 19 liters (5 gallons) per minute, and (3) associated valves and piping to the DSY System. Mechanical equipment, sluicing equipment, and similar treatment/processes are not limited to the processes described previously.

The maximum process design capacity for tank treatment at the SST System is 2,271,240 liters (600,000 gallons) per day.

S03

Associated with the SST System are 54 inactive diversion boxes designated as waste piles (S03). A summary of the SST System and corresponding diversion boxes is provided in Table 2. All diversion boxes used within the SST System are inactive and presently are isolated (weather covered). "Isolated" as used here means exterior water intrusion has been restricted.

The maximum process design capacity for waste pile storage at the SST System is approximately 23 kilograms (50 pounds) of waste lead stored in each diversion box (worst-case scenario) accounting for a total of 1,202 kilograms (2,650 pounds) or 0.11 cubic meter (0.14 cubic yard) of waste lead in storage.

Table 1 - Single Shell Tank Summary

Tank Number	Year of Construction	Year Removed from Service ¹	Operating Capacity (Liters)		
241-A-101	1954-1955	1980	3,785,400		
241-A-102	1954-1955	1980	3,785,400		
241-A-103	1954-1955	1980	3,785,400		
241-A-104	1954-1955	1975	3,785,400		
241-A-105	1954-1955	1963	3,785,400		
241-A-106	1954-1955	1980	3,785,400		
241-AX -101	1963-1964	1980	3,785,400		
241-AX-102	1963-1964	1980	3,785,400		
241-AX-103	1963-1964	1980	3,785,400		
241-AX -104	1963-1964	1978	3,785,400		
241-B-101	1943-1944	1974	1,892,700		
241-B-102	1943-1944	1978	1,892,700		

241-B-103	1943-1944	1977	1,892,700
241-B-104	1943-1944	1972	1,892,700
241-B-105	1943-1944	1972	1,892,700
241-B-106	1943-1944	1977	1,892,700
241-B-107	1943-1944	1969	1,892,700
241-B-108	1943-1944	1977	1,892,700
241-B-109	1943-1944	1977	1,892,700
241-B-110	1943-1944	1971	1,892,700
241-B-111	1943-1944	1976	1,892,700
241-B-112	1943-1944	1977	1,892,700
241-B-201	1943-1944	1971	208,197
241-B-202	1943-1944	1977	208,197
241-B-203	1943-1944	1977	208,197
241-B-204	1943-1944	1977	208,197
044 DV 404	4040 4047	4070	4 000 700
241-BX -101 241-BX -102	1946-1947 1946-1947	1972 1971	1,892,700 1,892,700
241-BX-102 241-BX-103	1946-1947	1977	1,892,700
241-BX-103	1946-1947	1980	1,892,700
241-BX -105	1946-1947	1980	1,892,700
241-BX-106	1946-1947	1971	1,892,700
241-BX -107	1946-1947	1977	1,892,700
241-BX-108	1946-1947	1974	1,892,700
241-BX-109	1946-1947	1974	1,892,700
241-BX-110	1946-1947	1977	1,892,700
241-BX-111	1946-1947	1977	1,892,700
241-BX-112	1946-1947	1977	1,892,700
241-BY-101	1948-1949	1971	2,839,050
241-BY -102	1948-1949	1977	2,839,050
241-BY-103	1948-1949	1973	2,839,050
241-BY-104	1948-1949	1977	2,839,050
241-BY-105	1948-1949	1974	2,839,050
241-BY-106	1948-1949	1977	2,839,050
241-BY-107	1948-1949	1974	2,839,050
241-BY-108	1948-1949	1972	2,839,050
241-BY-109	1948-1949	1979	2,839,050
241-BY-110	1948-1949	1979	2,839,050
241-BY-111	1948-1949	1977	2,839,050
241-BY-112	1948-1949	1978	2,839,050
241-C-101	1943-1944	1970	1,892,700
241-C-102	1943-1944	1976	1,892,700
241-C-103	1943-1944	1979	1,892,700
241-C-104	1943-1944	1980	1,892,700
241-C-105	1943-1944	1979	1,892,700
241-C-106	1943-1944	1979	1,892,700
241-C-107	1943-1944	1978	1,892,700
241-C-108	1943-1944	1976	1,892,700
241-C-109	1943-1944	1976	1,892,700
241-C-110	1943-1944	1976	1,892,700
241-C-111	1943-1944	1978	1,892,700
241-C-112	1943-1944	1976	1,892,700
241-C-201	1943-1944	1977	208,197
241-C-202	1943-1944	1977	208,197
241-C-203	1943-1944	1977	208,197
241-C-204	1943-1944	1977	208,197
244 € 404	4050 4054	4000	0.000.050
241-S-101	1950-1951	1980	2,839,050
241-S-102	1950-1951	1980	2,839,050
241-S-103 241-S-104	1950-1951 1950-1951	1980 1968	2,839,050 2,839,050
241-S-104 241-S-105	1950-1951	1974	2,839,050
Z-1 U-100	1950-1951	1317	2,000,000

241-S-106	1950-1951	1979	2,839,050
241-S-107	1950-1951	1980	2,839,050
241-S-108	1950-1951	1979	2,839,050
241-S-109	1950-1951	1979	2,839,050
241-S-110	1950-1951	1979	2,839,050
241-S-111 241-S-112	1950-1951 1950-1951	1972 1974	2,839,050 2,839,050
241-SX-101	1953-1954	1980	3,785,400
241-SX-102	1953-1954	1980	3,785,400
241-SX-103	1953-1954	1980	3,785,400
241-SX-104	1953-1954	1980	3,785,400
241-SX-105	1953-1954	1980	3,785,400
241-SX-106	1953-1954	1980	3,785,400
241-SX-107	1953-1954	1964	3,785,400
241-SX-108	1953-1954	1962	3,785,400
241-SX-109	1953-1954	1965	3,785,400
241-SX-110 241-SX-111	1953-1954 1953-1954	1976 1974	3,785,400
241-SX-111	1953-1954	1969	3,785,400 3,785,400
241-SX-113	1953-1954	1958	3,785,400
241-SX -114	1953-1954	1972	3,785,400
241-SX-115	1953-1954	1965	3,785,400
241-T-101	1943-1944	1979	1,892,700
241-T-102	1943-1944	1976	1,892,700
241-T-103	1943-1944	1974	1,892,700
241-T-104	1943-1944	1974	1,892,700
241-T-105	1943-1944	1976	1,892,700
241-T-106	1943-1944	1973	1,892,700
241-T-107 241-T-108	1943-1944 1943-1944	1976 1974	1,892,700 1,892,700
241-T-109	1943-1944	1974	1,892,700
241-T-110	1943-1944	1976	1,892,700
241-T-111	1943-1944	1974	1,892,700
241-T-112	1943-1944	1977	1,892,700
241-T-201	1943-1944	1976	208,197
241-T-202	1943-1944	1976	208,197
241-T-203	1943-1944	1976	208,197
241-T-204	1943-1944	1976	208,197
044 TV 404	4047 4040	4000	2 820 050
241-TX-101 241-TX-102	1947-1948 1947-1948	1980 1977	2,839,050 2,839,050
241-TX-102	1947-1948	1980	2,839,050
241-TX-104	1947-1948	1977	2,839,050
241-TX-105	1947-1948	1977	2,839,050
241-TX-106	1947-1948	1977	2,839,050
241-TX-107	1947-1948	1977	2,839,050
241-TX-108	1947-1948	1977	2,839,050
241-TX-109	1947-1948	1977	2,839,050
241-TX-110	1947-1948	1977	2,839,050
241-TX-111	1947-1948	1977	2,839,050
241-TX-112	1947-1948	1974	2,839,050
241-TX-113 241-TX-114	1947-1948 1947-1948	1971 1971	2,839,050 2,839,050
241-TX-114 241-TX-115	1947-1948	1977	2,839,050
241-TX-116	1947-1948	1969	2,839,050
241-TX-117	1947-1948	1969	2,839,050
241-TX-118	1947-1948	1980	2,839,050
241-TY-101	1951-1952	1973	2,839,050
241-TY-102	1951-1952	1979	2,839,050
241-TY-103	1951 - 1952	1973	2,839,050
241-TY-104	1951-1952	1974	2,839,050

241-TY-105	1951-1952	1980	2,839,050
241-TY-106	1951 - 1952	1959	2,839,050
241-U-101	1943-1944	1960	1,892,700
241-U-102	1943-1944	1979	1,892,700
241-U-103	1943-1944	1978	1,892,700
241-U-104	1943-1944	1951	1,892,700
241-U-105	1943-1944	1978	1,892,700
241-U-106	1943-1944	1977	1,892,700
241-U-107	1943-1944	1980	1,892,700
241-U-108	1943-1944	1979	1,892,700
241-U-109	1943-1944	1978	1,892,700
241-U-110	1943-1944	1975	1,892,700
241-U-111	1943-1944	1980	1,892,700
241-U-112	1943-1944	1970	1,892,700
241-U-201	1943-1944	1977	208,197
241-U-202	1943-1944	1977	208,197
241-U-203	1943-1944	1977	208,197
241-U-204	1943-1944	1977	208,197

Waste Transfer Vaults

Tank Number	Year of Construction	Year Removed from Service ¹	Operating Capacity (Liters)		
244-AR-001	1976	NA	162,772		
244-AR-002	1976	NA	162,772		
244-AR-003	1976	NA	18,113		
244-AR-004	1976	NA	18,113		
244-CR-003	1946	NA	55,494		
244-CR-011	1946	NA	170,343		

¹The last year the tank was capable of receiving waste; actual date of last waste receipt might have been earlier.

Table 2 - Single Shell Tank System Diversion Box Matrix

Unit	SSTs	Diversion box	Construction date	
Α	241-A-101 through 241 -A-106	241-A-152	1955	
	241-AX-101 through 241-AX-104	241-A-153	1966	
		241-AX-151	1963	
		241-AX-152	1962	
		241-AX-155	1983	
		241-AY-151	1975	
		241-AY-152	1970	
В	241-B-101 through 241 -B-112	241-B-151	1951	
	241-B-201 through 241 -B-204	241-B-152	1951	
	241-BX-101 through 241-BX-112	241-B-153	1951	
		241-B-154	1951	
		241-B-252	1951	

	,		В	
		241-BR-152	1952	
		241-BX -153	1951	
		241-BX -154	1951	
		241-BX -155	1951	
		241-BXR-151	1952	
		241-BXR-152	1952	
		241-BXR-153	1952	
		241-BYR-152	1952	
		241-BYR-153	1952	
		241-BYR-154	1952	
С	241-C-101 through 241-C-112	241-C-151	1951	
	241-C-201 through 241-C-204	241-C-152	1951	
	J	241-C-153	1951	
		241-C-154	1965	
		241-C-252	1951	
		241-CR-151	1952	
		241-CR-152	1952	
		241-CR-153	1952	
s	241-S-101 through 241 -S-152	240-S-151	1952	
	241-SX-101 through 241-SX-115	240-S-152	1952	
		241-S-152	1975	
		241-SX-151	1953	
		241-SX-152	1957	
Т	241-T-101 through 241-T-112	241-T-151	1950	
	241-T-201 through 241-T-204	241-T-152	1951	
	241-TX-101 through 241-TX-118	241-T-153	1951	
	241-TY-101 through 241-TY-106	241-T-252	1951	
		242-T-151	1951	
		241-TR-152	1951	
		241-TR-153	1952	
		241-TX-153	1951	
		241-TX-155	1951	
		241-TXR -151	1951	
		241-TXR -152	1952	
		241-TXR -153	1952	
		241-TY-153	1952	
U	241-U-101 through 241-U-112	241-U-153	1951	
	241-U-201 through 241-U-204	241-U-252	1951	
		241-UR-151	1951	
		241-UR-152	1952	
		241-UR-153	1952	
		241-UR-154	1952	
<u> </u>				

IV. DESCRIPTION OF DANGEROUS WASTES

- A. DANGEROUS WASTE NUMBER Enter the four digit number from Chapter 173-303 WAC for each listed dangerous waste you will handle. If you handle dangerous wastes which are not listed in Chapter 173-303 WAC, enter the four digit number(s) that describe the characteristics and/or the toxic contaminants of those dangerous wastes
- B. ESTIMATED ANNUAL QUANTITY For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

 ENGLISH UNIT OF MEASURE CODE

 METRIC UNIT OF MEASURE CODE

POUNDS P KILOGRAMS K
TONS T METRIC TONS M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed dangerous waste: For each listed dangerous waste entered in column A select the code(s) from the list of process codes contained in Section III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed dangerous wastes: For each characteristic or toxic contaminant entered in Column A, select the code(s) from the list of process codes contained in Section III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed dangerous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: DANGEROUS WASTES DESCRIBED BY MORE THAN ONE DANGEROUS WASTE NUMBER - Dangerous wastes that can be described by more than one Waste Number shall be described on the form as follows:

- 1. Select one of the Dangerous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- 2. In column A of the next line enter the other Dangerous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
- 3. Repeat step 2 for each other Dangerous Waste Number that can be used to describe the dangerous waste.

EXAMPLE FOR COMPLETING SECTION IV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

L	A. DANGEROUS		C. UNIT	D. PROCESSES					
I N NO E .	WASTE NO.	B. ESTIMATED ANNUAL QUANTITY OF WASTE	MEA- SURE (enter code)	1. PROCESS CODES (enter)			6	PROCESS DESCRIPTION (if a code is not entered in D(1))	
X-1	K054	900	P	T03	D80				
X-2	D002	400	P	T03	D80				
X-3	D001	100	P	T03	D80				
X-4	D002			T03	D80			included with above	
1	D001	204,116,566	К	S02	T01			Storage-Tank/Treatment-Tank	
2	D002		↓	V	₩			↓	
3	D003		+	\	₩			↓	
4	D004		+	Ψ	₩			↓	
5	D005		+	Ψ	₩			↓	
6	D006		↓	\downarrow	Ψ			↓	
7	D007		+	\	₩			↓	
8	D008		+	Ψ	₩			↓	
9	D009		+	\	₩			↓	
10	D010		↓	Ψ	₩			↓	
11	D011		+	Ψ	₩			↓	
12	D018		+	Ψ	₩			↓	

		ž ,				<u> </u>
13	D019		↓	↓	↓	↓
14	D022		₩	→	₩	Ψ
15	D028		Ψ	→	→	Ψ
16	D029		₩	→	→	Ψ
17	D030		₩	→	→	Ψ
18	D033		₩	→	→	₩
19	D034		Ψ	→	→	Ψ
20	D035		Ψ	→	→	₩
21	D036		Ψ	→	→	₩
22	D038		₩	→	→	₩
23	D039		Ψ	→	→	Ψ
24	D040		Ψ	→	→	₩
25	D041		→	→	₩	₩
26	D043		→	→	₩	₩
27	WP01		₩	→	₩	₩
28	WP02		₩	→	→	₩
29	WT01		₩	→	→	₩
30	WT02		→	→	₩	₩
31	F001		→	→	→	₩
32	F002		Ψ	→	→	₩
33	F003		→	→	₩	₩
34	F004		→	₩	₩	Ψ
35	F005		Ψ	₩	₩	Included With Above
36	D008	1,202	К	S03		Storage - Waste Pile
37						
38						
39						
40						

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM SECTION D(1) ON PAGE 3.

The mixed waste stored in the SST System was generated by four major chemical reporcessing operations: the bismuth phosphate (BiPo) process, the reduction-oxidation (REDOX) process, the plutonium-uranium extraction (PUREX) process, and the tributyl phosphate (TBP) process.

The dangerous waste numbers listed under the description of dangerous waste are based on a computer model and past process knowledge rather than on chemical analysis of waste. The Estimated Annual Quantity of Dangerous Waste (section IV.B.) listed is 204,116,556 kilograms (450,000,000 pounds) and is based on an average density of the waste calculated from the densities of 26 core samples taken of waste stored in the various SSTs. The average density (1.4 kilograms/liter [12 pounds/gallon]) was multiplied by 139,440,000 liters (36,836,000 gallons) and rounded-up to 204,116,556 kilograms (450,000,000 pounds). The figure 139,440,000 liters (36,836,000 gallons) represents the estimated volume of liquid mixed waste remaining in the SST System.

The quantity of waste lead stored in the diversion boxes is based on previous research of historical records. Because of the radiological hazards associated with individual inspection of the diversion boxes, a quantity of 23 kilograms (50 pounds) of waste lead was estimated for each box. This represents a conservative estimate, as 23 kilograms (50 pounds) is the maximum quantity of waste lead known to be in any one diversion box.

V. FACILITY DRAWING Refer to attached drawing(s).

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS Refer to attached photograph(s).

All existing facilities must include photographs (arial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

VII. FACILITY GEOGRAPHIC LOCATION This information is provided on the attached drawing(s) and photograph(s).

LATITUDE (degrees, r	minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)				

VIII. FACILITY OWNER				
A. If the facility owner is also the facility operator as listed in Section VII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below. B. If the facility owner is not the facility operator as listed in Section VII on Form 1, complete the following items:				
1. NAME OF FACILITY'S LEGAL OWNER			2. PHONE NO. (area code & no.)	
3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE	
IX. OWNER CERTIFICATION				
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.				
NAME (print or type)	SIGNATURE	DATE SIGNED		
Keith A. Klein, Manager U. S. Department of Energy	L. L. Piper for	12/21/1999		
X. OPERATOR CERTIFICATION				
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.				
NAME (print or type)	SIGNATURE	DATE SIG	NED	
SEE ATTACHMENT				

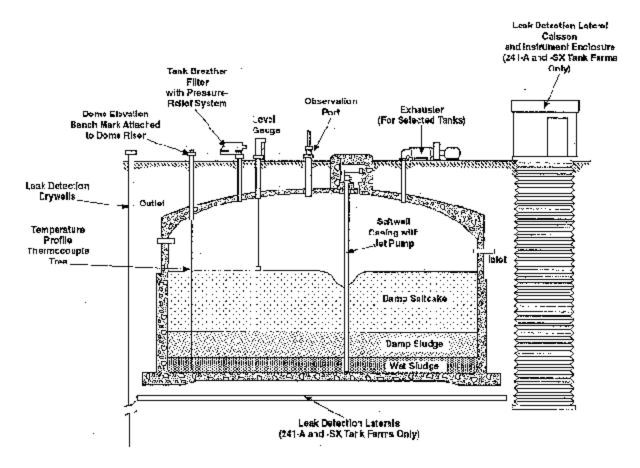
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

L. L. Piper for Owner/Operator Keith A. Klein, Manager U.S. Department of Energy	<u>12/21/99</u> Date
M. P. Delozier Co-Operator M. P. DeLozier President and RPP General Manager CH2M HILL Hanford Group, Inc.*	

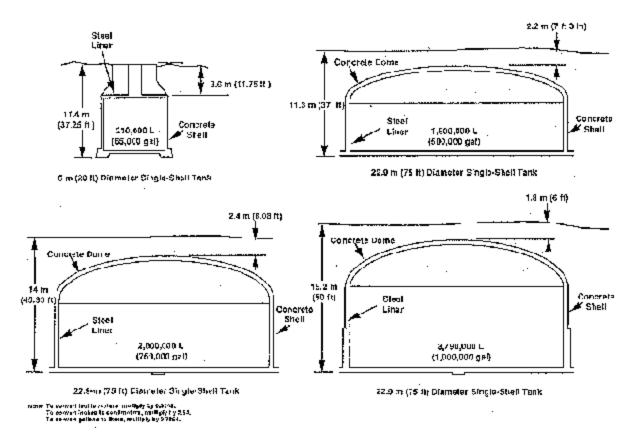
*Co-operator under Department of Energy Office of River Protection Contract #DE-AC06-99L14047.

Typical Single-Shell Tank



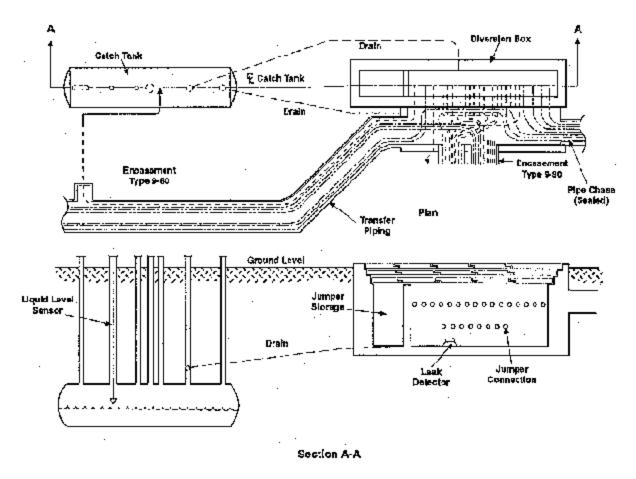
39208103.17

Cross-Sectional Views of Single-Shell Tanks



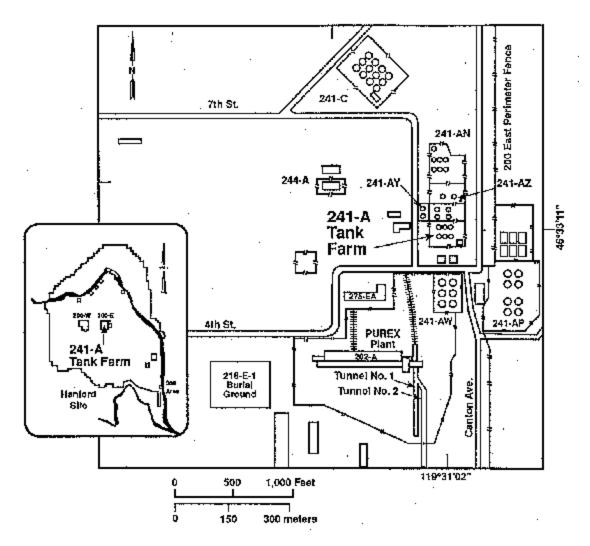
39211048.5a

Typical Transfer System



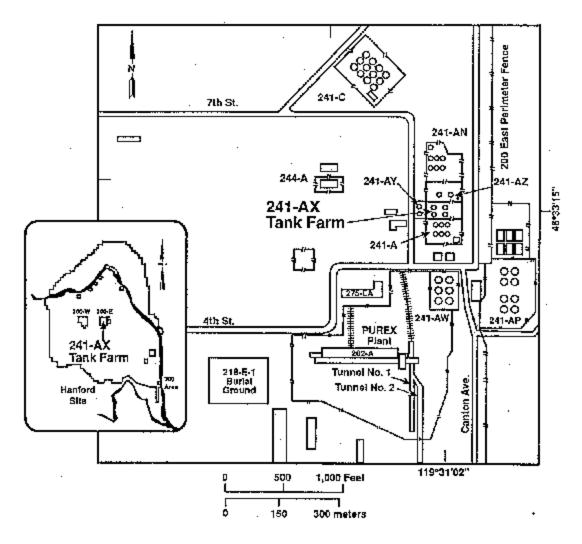
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241-A Single-Shell Tank Farm Site Plan



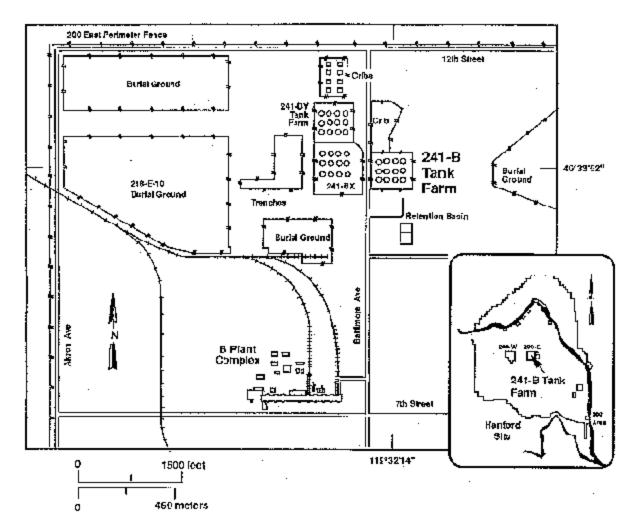
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241-AX Single-Shell Tank Farm Site Plan



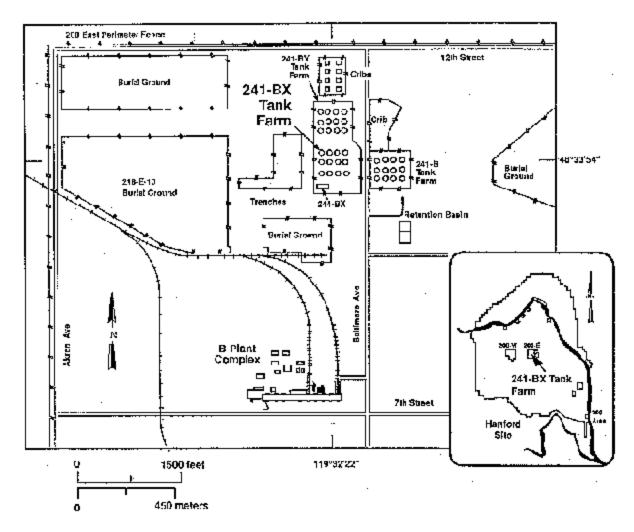
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241-B Single-Shell Tank Farm Site Plan



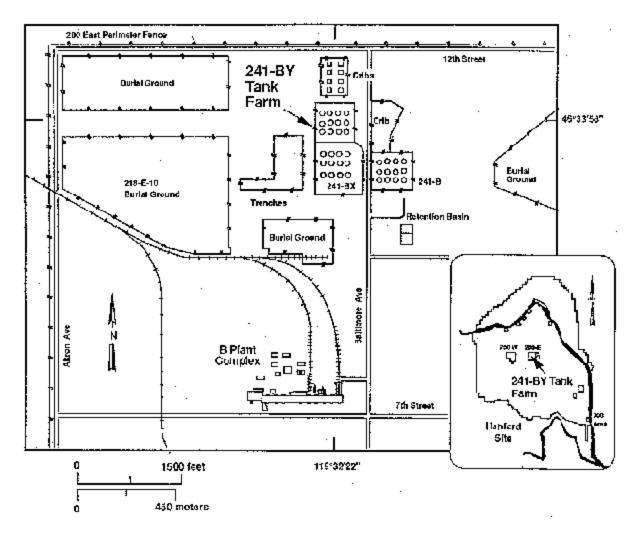
H96070161.41b

241-BX Single-Shell Tank Farm Site Plan



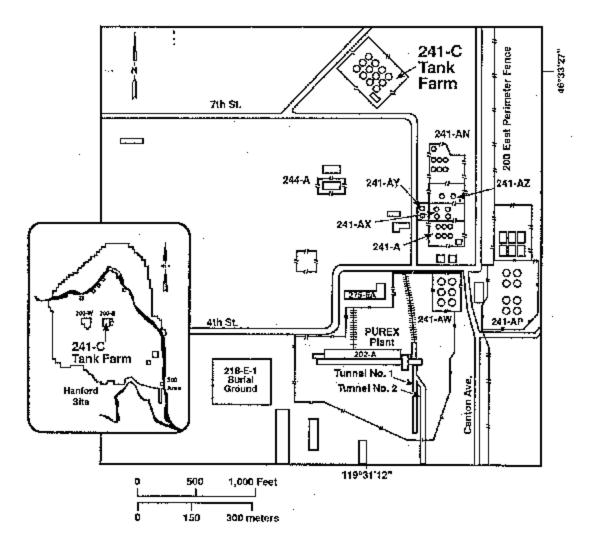
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241-BY Single-Shell Tank Farm Site Plan



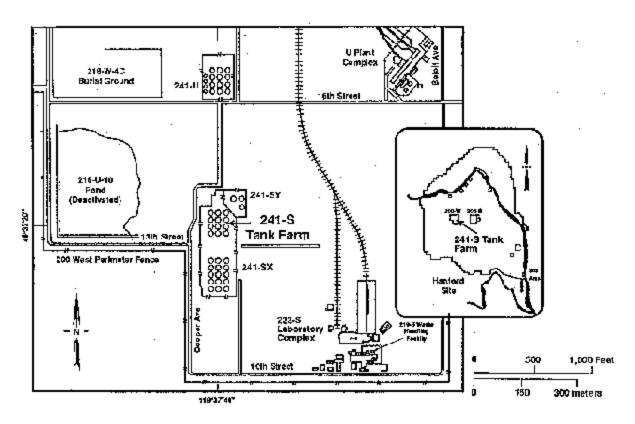
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241-C Single-Shell Tank Farm Site Plan



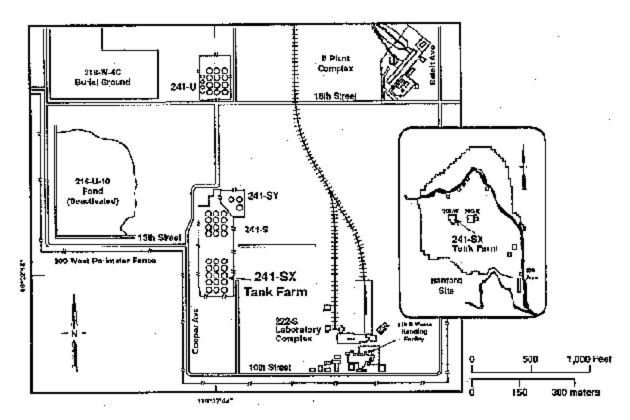
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241-S Single-Shell Tank Farm Site Plan



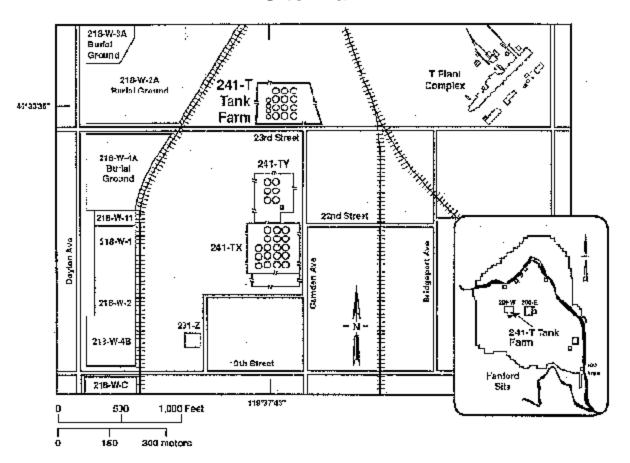
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241-SX Single-Shell Tank Farm Site Plan



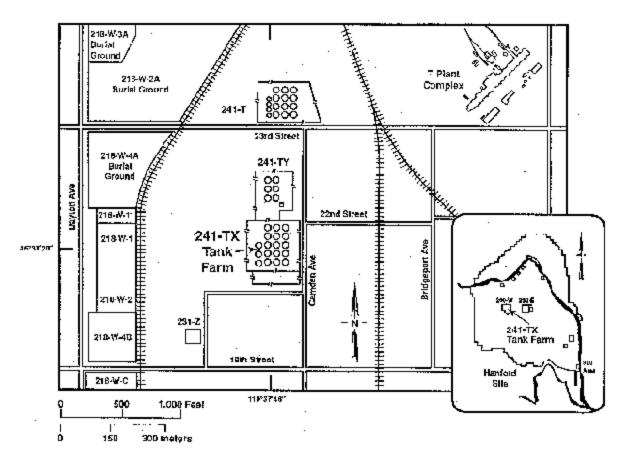
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241-T Single-Shell Tank Farm Site Plan



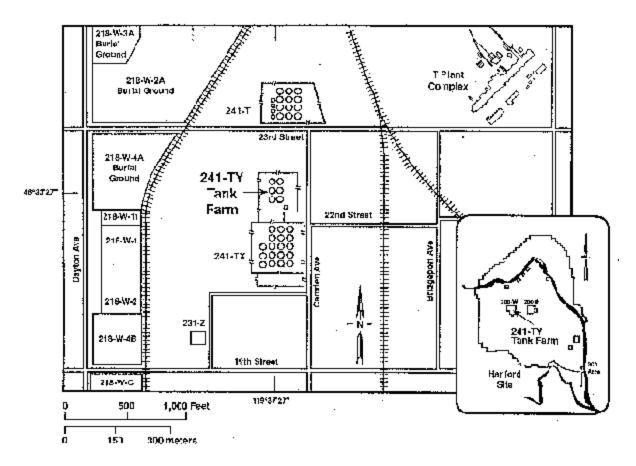
H96070161.39a

241-TX Single-Shell Tank Farm Site Plan



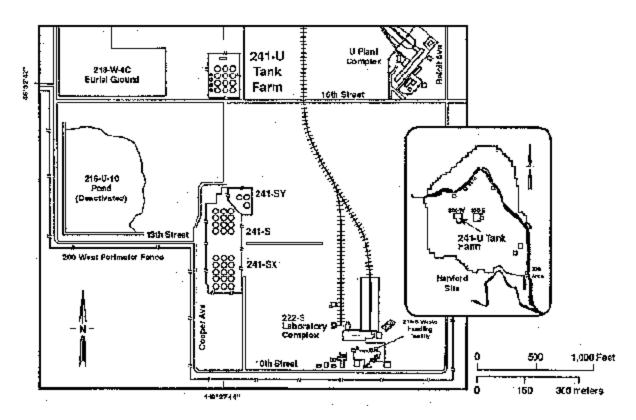
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241-TY Single-Shell Tank Farm Site Plan



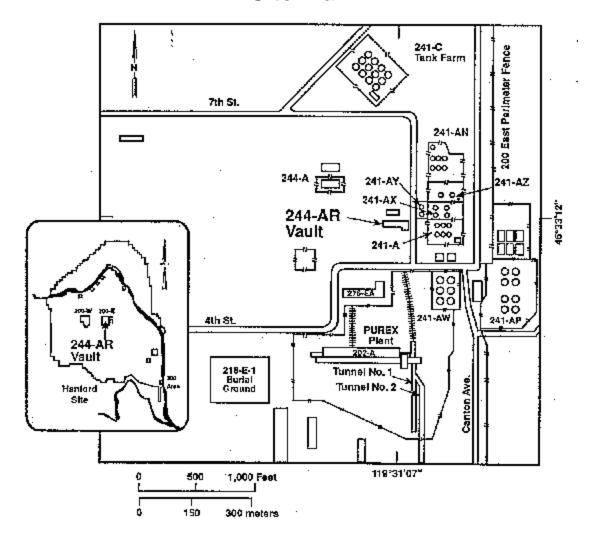
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241-U Single-Shell Tank Farm Site Plan



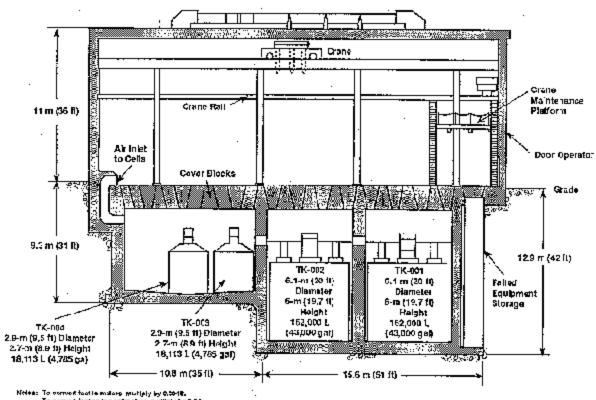
H96070161.37c

244-AR Vault Site Plan



H96070161.35d

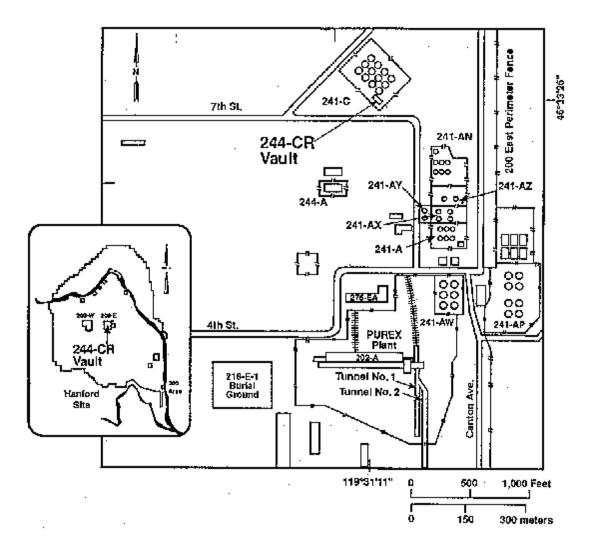
244-AR Vault



Notes: To correct tool to exist a multiply by 0,0018. To correct inclus to continuions, multiply by 2,54, To servest gallano to those, multiply by 0,7004.

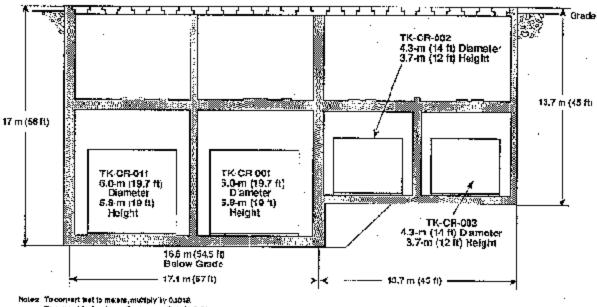
39208044.23

244-CR Vault Site Plan



H96070161.35e

244-CR Vault



Note: To convert that to meters, multiply by 0.3038.
The other time has to continuous, multiply by 0.54.

39208044.22

241-A SINGLE-SHELL TANK FARMS



46°33'11" 119°31'02"

8800284-1CN (PHOTO TAKEN 1988)

241-AX SINGLE-SHELL TANK FARM



46°33'15" 119°31'02"

8800284-2CN (PHOTO TAKEN 1988)

241-AX SINGLE-SHELL TANK FARM



46°33'15" 119°31'02"

8800284-3CN (PHOTO TAKEN 1988)

241-B SINGLE-SHELL TANK FARM



46°33'52" 119°32'14"

8800284-6CN (PHOTO TAKEN 1988)

241-BX SINGLE-SHELL TANK FARM



46°33'54" 119°32'22"

8800284-7CN (PHOTO TAKEN 1988)

241-BY SINGLE-SHELL TANK FARM



46°33'58" 119°32'22"

96080579-27CN (PHOTO TAKEN 1996)

241-C SINGLE-SHELL TANK FARM



46°33'27" 119°31'12"

8800284-5CN (PHOTO TAKEN 1988)

241-S SINGLE-SHELL TANK FARM



46°33'20" 119°37'44"

96080579-3CN (PHOTO TAKEN 1996)

241-SX SINGLE-SHELL TANK FARM



46°32'16" 119°37'44"

96080579-6CN (PHOTO TAKEN 1996)

241-T SINGLE-SHELL TANK FARM



46°33'36" 119°37'43"

96070579-13CN (PHOTO TAKEN 1996)

241-TX SINGLE-SHELL TANK FARM



46°33'20" 119°37'46"

96070579-15CN (PHOTO TAKEN 1996)

241-TY SINGLE-SHELL TANK FARM



46°33'27" 119°37'27"

96080579-18CN (PHOTO TAKEN 1996)

241-U SINGLE-SHELL TANK FARM



46°32'42" 119°37'44"

96080579-9CN (PHOTO TAKEN 1996)

244-AR VAULTS



46°33'12" 119°31'07"

8704135-16CN (PHOTO TAKEN 1987)

244-CR VAULTS



46°33'26" 119°31'11"

8704135-14CN (PHOTO TAKEN 1987)